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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,313	06/02/2006	Tadashi Takenaka	060430	3860
23850	7590	06/24/2010	EXAMINER	
KRATZ, QUINTOS & HANSON, LLP			KING, BRADLEY T	
1420 K Street, N.W.				
4th Floor			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20005			3657	
			MAIL DATE	DELIVERY MODE
			06/24/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/581,313	TAKENAKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Bradley T. King	3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 22 March 2010.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 10-12, 14-16, 19 and 20 is/are pending in the application.

4a) Of the above claim(s) 1-9, 17 and 18 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 10-12, 14-16, 19 and 20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 19-20 recites portions "with sag" and portions with "no sag" or similar limitations. It is not clear what structure corresponds to "sag" and "no sag". It is not clear if this structure is intended to be different than the recited chamfer surfaces.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-12, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US 2004/0200674) in view of Hendrickson (US 3623579).

Campbell discloses a brake disk including; a recessed and ridged portion which is recessed and protruded in a radial direction is formed repeatedly on an outer peripheral edge of a rotor plate of the brake disk along a circumferential direction. See figure 9. Campbell lacks the explicit disclosure of a chamfered surface provided on a

corner portion of the recessed and ridged portion. Hendrickson discloses a similar brake device and further teaches a chamfer portion 33 or 34 to remove sharp edges and prevent damage to pads. Col. 2, lines 29-33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the chamfers taught by Hendrickson in the device of Campbell to increase the safety of handling of the device and prevent damage to the brake pad structure. Regarding the "press molding" recitation, it is noted that the step of press molding does not appear to provide a structural distinction to the chamfer structure. Note MPEP 2114.

Regarding claims 12 and 19-20, note the 112 2<sup>nd</sup> rejection above. Since the recited sag appears to be substantially the same as the chamfer, the chamfers of Campbell and Hendrickson are readable on the recited chamfer and sag portions.

Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US 2004/0200674) and Hendrickson (US 3623579) as applied to claim 10 above, and further in view of Torii et al (US 2002/0003071).

Campbell and Hendrickson disclose all the limitations of the instant claims with exception to the explicit disclosure of the dimensions of the chamfers. Torii et al disclose a similar device and further teach chamfer portions of .5mm or less. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the appropriate chamfer sizes for Campbell and Hendrickson, including values of .5mm as taught and evidenced by Torri et al, through routine design and/or experimentation to provide proper safety and disk strength.

***Response to Arguments***

Applicant's arguments filed 3/22/2010 have been fully considered but they are not persuasive.

Regarding the distinct properties of metal which has been press-molded, the Examiner notes that the instant invention appears to further include cut processing or machining (claim 11, figure 7) of the molded product. Therefor, the resulting product does not appear to result a clear structural difference over that of the prior art.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley T King/  
Primary Examiner, Art Unit 3657

BTK